CLAIM:

1. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network that has a switching function, the data distribution method is characterized in that

each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(j) (j is an integer from 0 to n-1), computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi and further ,in each pair including 2 computers which are connected to be able transmit data via the line concentrator or communications network noted above, mutually between 2 computers which are connected, the computer repeats steps that computers transmit their allocated partial data to the partner computer which is connected to said computer between each other.

2. The data distribution method according to claim 1 wherein said step is repeated n-1 times if n is even and n times when if n is odd, and each cycle of the step is repeated only between said pair of computers and a same pair of computers is allocated without overlapping through all of the steps.

3. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network capable of full duplex transmission with switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(j) (j is an integer from 0 to n-1), computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing

of partial data Xi(k) located on each computer PCi ,and further , in computers which are connected to be able transmit data via the line concentrator or communications network noted above, in repeating the step that computers transmit their allocated partial data between the computer which sends data and the computer which receives data, during each step, same computer for sending and same computer for receiving are allocated without overlapping and same computers are allocated without overlapping through all of the steps, and these steps are repeated n-1 times, regardless of whether n being even or odd.

4. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network that has a switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(m) (m is an integer from 0 to n-1) having a size of unit data and can be divided into the block of every consecutive n of the partial data without overlapping, computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi, and further, in each pair including 2 computers which are connected to be able transmit data via the line concentrator or communications network noted above, mutually between 2 computers which are connected, the computer repeats steps that computers transmit their allocated partial data to the partner computer which is connected to said computer between each other.

5. The data distribution method according to claim 4 wherein the block of the . turn(where .is an integer of 0 and more) includes partial data from n x. to (n x.+n-1) and the computer PCk of the k turn is responsible for the cross correlation processing of partial data Xi(k+ n x .) located on each computer

PCi.

6. The data distribution method according to claim 4 or 5 wherein said steps are applied to every block n-1 times if n is an even number, and n times if n is an odd number and each cycle of the step are repeated between the said pairs of computers assigned without overlapping, and all of the steps are repeated between said pairs assigned without overlapping.

7. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network capable of full duplex transmission with switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(m) (m is an integer from 0 to n-1) having a size of unit data and can be divided into the block of every consecutive n of the partial data without overlapping, computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi, and further, in computers which are connected to be able transmit data via the line concentrator or communications network noted above, in repeating the step that computers transmit their allocated partial data between the computer which sends data and the computer which receives data, during each step, same computer for sending and same computer for receiving are allocated without overlapping and same computers are allocated without overlapping through all of the steps, and these steps are repeated n-1 times, regardless of whether n being even or odd,

8. The data distribution method according to one of claims 1 to 7 that computers used in this method are general purpose computers.

9. The data distribution method according to one of claims 1 to 8 that the network medium allows for full duplex communications.

10. The data distribution method according to one of claims 1 to 9 that data used in this method are time series data recorded from radio telescopes.

11. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network that has a switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(j) (j is an integer from 0 to n-1), computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi and further, in each pair including 2 computers which are connected to be able to transmit data via the line concentrator or communications network noted above, mutually between 2 computers which are connected, includes data transmission means which repeats steps that computers transmit their allocated partial data to the partner computer which is connected to said computer between each other.

12. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network that has a switching function, the data distribution method is characterized in that
each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(m) (m is an integer from 0 to n-1) having a

size of unit data and can be divided into the block of every consecutive n of the partial data without overlapping, computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi, and further, in each pair including 2 computers which are connected to be able transmit data via the line concentrator or communications network noted above, mutually between 2 computers which are connected, includes data transmission means which repeats steps that computers transmit their allocated partial data to the partner computer which is connected to said computer between each other.

13. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line concentrator or communications network capable of full duplex transmission with switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(j) (j is an integer from 0 to n-1), computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi ,and further , in computers which are connected to be able transmit data via the line concentrator or communications network noted above, in repeating the step that computers transmit their allocated partial data between the computer which sends data and the computer which receives data, during each step, same computer for sending and same computer for receiving are allocated without overlapping and same computers are allocated without overlapping through all of the steps, and includes data transmission means in which these steps are repeated n-1 times, regardless of whether n being even or odd.

14. In the network system that n (n is any real number of 2) number of computers PCi, (integer i represents the number of PCi from 0 to n-1) are connected to a line

concentrator or communications network capable of full duplex transmission with switching function, the data distribution method is characterized in that each computer PCi has a storage device that is responsible for storing data Xi (i is an integer from 0 to n-1) that is to be cross correlated, the data Xi noted above on each PCi can be divided into n partial data Xi(m) (m is an integer from 0 to n-1) having a size of unit data and can be divided into the block of every consecutive n of the partial data without overlapping, computer PCk (k is an integer from 0 to n-1) is responsible for the cross correlation processing of partial data Xi(k) located on each computer PCi, and further, in computers which are connected to be able transmit data via the line concentrator or communications network noted above, in repeating the step that computers transmit their allocated partial data between the computer which sends data and the computer which receives data, during each step, same computer for sending and same computer for receiving are allocated without overlapping and same computers are allocated without overlapping through all of the steps, and data transmission means in which these steps are repeated n-1 times, regardless of whether n being even or odd.

15. The data distribution method according to one of claims 11 to 14 that the network medium allows for full duplex communications.